

LISTING OF THE CLAIMS:

Claims 1-30 (Cancelled).

31. (New) Stamp device for printing a pattern on a surface of a substrate, said device having a two-sided rigid carrier layer providing on a first side thereof a patterned layer made of a first material and being combined on a second side opposite said first side with a soft layer made of a softer material than said first material, said patterned layer being stretched to selectively compensate for thermal, chemical, and mechanically induced deformation of said patterned layer to result in accurate prints; said carrier layer describes an x-y-plane in which said carrier layer is rigid and said carrier layer is flexible in a direction perpendicular to said x-y-plane; said patterned layer providing at least one force transducer zone arranged proximate the margin of said patterned layer for monitoring a force induced load acting between said stamp and said substrate.
32. (New) Stamp device according to claim 31, wherein said force transducer zone provides a patterned structure along the stamp margin surrounding at least an unencumbered area, and proximate said unencumbered area there are provided structures forming said patterned layer which bound the unencumbered area in at least one direction.

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33. (New) Stamp device according to claim 31, wherein said force transducer zone provides a patterned configuration surrounding at least an unencumbered area; and separating means which divide said unencumbered area into at least two unencumbered surface sections.
34. (New) Stamp device according to claim 31, wherein said carrier layer is selected from a material consisting of a metal foil, thin glass or quartz substrate.
35. (New) Stamp device according to claim 31, wherein said patterned layer possesses a thickness greater than that of said structure depths, and said soft layer is of a thickness greater than the thickness of said patterned layer.
36. (New) Stamp device according to claim 35, wherein said patterned layer possesses a thickness greater than that of said structure depths, and said soft layer is of a thickness greater than the thickness of said patterned layer.
37. (New) Stamp device according to claim 31, wherein said soft layer includes a backside and said stamp device comprises a press for directing a force against said backside for contacting said patterned layer with said surface of said substrate.
38. (New) Stamp device according to claim 37, wherein said press comprises a roller element forming a cylindrical press having an at least partially cylindrical surface.

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39. (New) Stamp device according to claim 31,

wherein said patterned layer includes patterned structures for contacting said surface of said substrate and said patterned structures being separated from each other by unencumbered areas and in said areas containing patterned structures the first material of said patterned layer is at least partially omitted so as to form at least one recess, and wherein at least one passage channel breaks through said carrier layer into said at least one recess for creating a fluidic or gas network between said surface of said substrate and said stamp device.

40. (New) Stamp device according to claim 39, wherein there are provided at least two said passage channels comprising an inflow channel and an outflow channel for a fluid or gaseous media.

41. (New) Stamp device according to claim 39, wherein at least two layers of said fluidic or gas network are stacked on top of each other to allow formation of multidimensional networks providing access to a multitude of substances at a multitude of locations without level intersections.

42. (New) Stamp device according to claim 31, wherein said stamp device forms said patterned layer and the surface of said substrate comprise self-aligning means providing for an accurate relative positioning during the printing of said pattern.

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43. (New) Stamp device according to claim 42, wherein said self-aligning means comprises lock and key elements with lock elements of a constant shape and distance, and said key elements are of variable shape dimensionally smaller than said lock elements and increasingly larger for fitting without any mismatch into said lock elements.

44. (New) Stamp device according to claim 43, wherein said lock and key elements have tapered flanks.

45. (New) Stamp device according to claim 43, wherein said lock and key elements are arranged in a row along which said patterned layer and said substrate are brought into contact.

46. (New) Stamp device according to claim 43,
wherein said patterned layer comprises said key elements and said surface of said substrate comprises said lock elements.

47. (New) Stamp device according to claim 39,
wherein said unencumbered areas are connected to a closed gaseous network and are pressurized through at least one said passage channel to prevent said areas from sagging and contacting said substrate upon applying a load onto said stamp device.

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